

***This document is a draft of a future solicitation and is subject to change without notice***

**SECTION 2 - SPECIAL TERMS AND CONDITIONS**

**2.1 PURPOSE**

The purpose of this solicitation is to establish a contract for the purchase of up to four new Heavy Duty Road Service Trucks ("Truck") complete with Cab & Chassis, Utility Body, and all equipment as specified herein for Miami-Dade County ("the County") on behalf of Department of Transportation and Public Works ("DTPW"). Trucks will be for non-revenue use, purchased with funds from the Federal Transit Administration.

**2.2 TERM OF CONTRACT**

This contract shall commence upon the date of the purchase order and shall remain in effect for a term of one hundred-eighty (180) calendar days. The awarded bidder's failure to deliver Trucks within the time limit set forth shall not alleviate the awarded bidder from its obligations under the Contract. The stated term of the Agreement is independent of the actual completion of the expressed and/or implied warranty periods.

**2.3 METHOD OF AWARD**

Award of this contract will be made to the responsive and responsible Bidder whose offer represents the lowest price for the item(s) listed in this solicitation, and who meets the criteria listed below in 2.3.1 through 2.3.4.

The base bid is defined as three (3) heavy duty service trucks as herein specified. Option No. 1 is for the provision of one (1) additional heavy duty service truck as herein specified. The gross sum bid price will comprise of the total of the base bid amount plus the Option No. 1 amount, which will be used to identify the Bidder having submitted the lowest price. The County reserves the right to execute an Agreement with the Awardee solely at the base bid amount. The County reserves the right to elect Option No. 1 at any time during the term of the Agreement.

Minimum Requirements:

- 2.3.1 The awarded Bidder shall be the manufacturer or an authorized dealer of the Cab & Chassis or of the Utility Body offered with its bid.
- 2.3.2 Bidder shall have and identify one authorized service facility to service the Cab & Chassis and one service facility to service the Utility Body with all the equipment offered by Bidder. Bidder may list one facility if that one facility will be capable of servicing and performing warranty repairs and supplying needed parts for both the Cab & Chassis and the Utility Body and all equipment offered by Bidder. These facilities shall be located within three (3) hours or less of drive time from both locations listed below. These locations represent the northern and southern most points of DTPW's current bus routes. The drive time will be calculated by the County using Google Maps, Weekday – Noon driving times, plus or minus 15 minutes:

- a) Northern most bus route point: 200 Southwest 21st Terr., Fort Lauderdale, FL 33312

- b) Southern most bus route point: 5407 Overseas Hwy, Marathon, FL 33050

Bidders who currently do not have facilities meeting the criteria above shall provide a statement on their company letterhead with their bid submittal affirming either a facility will be opened or an agreement will be executed with an existing facility meeting the requirements above after the award recommendation is signed but before a purchase order is issued by the County.

Bidders shall submit with their bid, verification of their compliance with Paragraphs 2.3.1 and 2.3.2. The County reserves the right to request additional documents needed to authenticate the Bidders compliance.

- 2.3.3 In accordance with Chapter 320 of the Florida Statutes, SS320.27, Bidders submitting a bid in conjunction with this solicitation must be licensed by the state of Florida as motor vehicle dealers. Bidders shall furnish a copy of their license with their bid submittal. The Bidder may be given the opportunity to submit a copy of the license to the County during the bid evaluation period. Failure to meet this requirement may result in your bid not being considered for award.

- 2.3.4 Bidders shall complete, sign, and upload all certificates found in Appendix A.

**The Bidder shall complete all forms/affidavits as required bid submission documents, see Appendix A and Exhibit A of the RFP. Failure of the Bidder to submit a completed Buy America Certificate, signed by the Bidder, will result in an automatic nonresponsive determination.**

## 2.4 **PRICES**

If the Bidder is awarded a contract as a result of this solicitation, the prices proposed by the Bidder shall remain fixed and firm during the term of contract. Prices offered shall include all equipment as specified in Section 3, and freight, manuals, warranty, and all other special conditions required in this Solicitation.

## 2.5 **SPECIAL CONDITIONS FOR BIDDING MOBILE EQUIPMENT**

- 2.5.1 Bidder must submit with its bid the manufacturer's standard information sheets, catalogues, brochures and all supporting documentation to show the product meets or exceeds the required specifications. Standard product literature submitted that offer technical data or product descriptions indicating the item or product bid does not meet the required specifications must be accompanied by a letter, on the Bidder's company stationery, identifying those differences and describing how compliance with the required specifications is to be accomplished. The County may request additional information when evaluating bids.

Note: Photographs, picture, and other graphic illustrations that are part of standard product literature will not be used in determining product compliance with these specifications.

- 2.5.2 After the Bid Submittals have been evaluated by the County, the Bidder offering the lowest price as stipulated in Paragraph 2.3 of this solicitation may be required to demonstrate the vehicles offered comply with the specified requirements of Section 3. This demonstration, if requested by the County, shall be provided at no cost to the County. The purpose of the demonstration is to observe the vehicles in an operating environment and verify its capability, suitability, and adaptability vis-à-vis the performance requirements stipulated in Section 3. If a demonstration is required, the County will notify the Bidder in writing and will specify the date, time, and location of the demonstration. If the

Bidder fails to perform the demonstration on the date stipulated in the notice, the County may elect to reject the Bidder's proposal or to re-schedule the demonstration. The County will be the sole judge of the acceptability of the vehicles in conformance with its Specifications and its decision shall be final.

If applicable, the vehicles used for the demonstration shall be the same as the manufacturer's model identified in the Bidder's offer. Accordingly, the vehicles used in the demonstration shall create an expressed warranty that the actual vehicles provided by the Bidder during the contract period shall be similar to the vehicle used in the demonstration. Should that vehicle be new, not previously demonstrated and conforms to all bid specifications and requirements, the County reserves the right to purchase, as part of contract award quantity, that vehicle(s) upon successful completion of the demonstration.

- 2.5.3 Vehicle Standards: The vehicles furnished by the awarded Bidder during the term of the contract shall be new. Vehicles that are equipped with the original equipment manufacturer's ("OEM") standard accessories shall have less than fifty (50) miles recorded on the odometer at the time of delivery. Vehicles that are equipped with accessories or equipment which are not the OEM's standard order must have less than 2,500 miles recorded on the odometer at the time of delivery. Vehicles delivered with mileage exceeding this mileage requirement will not be accepted. Odometers must not show any signs of tampering or disconnect/reconnect. Any equipment required in the Section 3, Technical Specifications which are optional equipment of the manufacture shall be considered standard equipment of the vehicle for the purposes of this solicitation. Any optional equipment that are recommended by the vehicle manufacturer to use the vehicle as intended by the County must be included and will be considered standard equipment of vehicle for the purposes of this solicitation.

The application and usage of all components, sub-components or parts must be in accordance with their manufacturers' recommendations, as well as the recommendations of all associated equipment manufacturers. Omission of any essential detail from these specifications in order to use the vehicle as intended by the County does not relieve the vendor from furnishing a complete and ready to work unit. The unit shall conform to all applicable Occupational Safety and Health Administration ("OSHA"), State and Federal, and American National Standards Institute ("ANSI") requirements and standards, and Department of Transportation ("DOT") regulations. All components and included craftsmanship are to be in accordance with current Society of Automotive Engineers ("S.A.E.") standards and recommended practices. The engineering, materials and workmanship shall exhibit a high level of quality and appearance, consistent with or exceeding the industry standards.

## 2.6 **WARRANTY REQUIREMENTS**

- 2.6.1 Warranty Term: The awarded Bidder shall supply, subsequent to award, and be responsible for the vehicle's warranty. Vehicles shall have a warranty free of deductibles with no less than the following industry defined coverage, whichever comes first:
- A. Full vehicle (Cab & Chassis) bumper to bumper - twenty-four (24) months or 36,000 miles.
  - B. Power train - twenty-four (24) months or 60,000 miles.

C. Utility Body:

- i. Defects in material and/or workmanship - thirty-six (36) months or 36,000 miles.
- ii. Sheet metal component rust through - seventy-two (72) months or unlimited miles.
- iii. Door hinges, latches and locks (mechanical failure) - seventy-two (72) months or unlimited miles.

## D. Installed and/or Supplied Equipment - Manufacturers Standard Warranty.

When vehicle or component manufacturers provide a warranty with coverage in excess of that stipulated herein, that additional coverage shall not be diminished by the requirements of this paragraph. When vehicle or component manufacturers provide a warranty with less coverage than that stipulated herein, the successful Bidder shall provide a supplemental warranty that meets the warranty requirements stipulated herein. The warranty terms per vehicle shall commence when the vehicle is put into service.

- 2.6.2 Warranty Repairs: The Bidder shall be responsible for promptly correcting any warranted deficiency, at no cost to the County, within five (5) calendar days after the County has notified the Bidder of such deficiency in writing, or within the time period otherwise stipulated in the notice. If the Bidder fails to honor the warranty and/or fails to correct the deficiency within the period specified, the County may, at its discretion, (a) allow the awarded Bidder additional time to correct the deficiency or (b) procure the products or services from another Bidder and charge the awarded Bidder for any costs incurred by the County, either through a credit memorandum or through invoicing. The opportunity to cure any deficiencies does not waive the County's right to find the awarded Bidder in default of the contract in accordance with the contract terms and conditions.

**2.7. SHIPPING AND DELIVERY REQUIREMENTS**

- 2.7.1 Shipping Terms: All prices shall include delivery terms for F.O.B. destination point. Deliveries are authorized at the County's New Car Get Ready Facility, located at 6100 SW 87th Avenue, Miami, Florida 33173, between the hours of 8:00 A.M. and 2:00 P.M. weekdays, or at another location or at times that may be so designated on the purchase order. Contact the Facility Supervisor at (305) 273-4127, forty-eight (48) hours prior to delivery.
- 2.7.2 Delivery Requirements: Delivery of all vehicles is required no later than **180 calendar days after receipt of a valid Purchase Order.** Failure to deliver all vehicles by this date, except failure due to acts of nature or beyond the awarded Bidder's control, may be cause for termination of contract for default, and the awarded Bidder shall bare all its costs arising from said termination. All deliveries are to be made in accordance with good commercial practice. All vehicles shall be delivered in full compliance with the bid specifications and requirements and must be in ready to work condition. Upon verification of compliance with these requirements, the County will accept the vehicles.
- 2.7.3 Delivery Deficiencies: The awarded Bidder shall be responsible for promptly correcting any deficiency or damage to the vehicle upon delivery, at no cost to the County, within two (2) calendar days after the County notifies the Bidder of such deficiency, or otherwise as stipulated in the notice. If the awarded Bidder fails to correct the deficiency within the time period specified, the County may (a) procure the products or services from another Bidder and charge the Bidder either through a

credit memorandum or through invoicing for any costs incurred by the County or (b) allow the Bidder additional time. The opportunity to cure any deficiencies does not waive the County's right to find the Bidder in default of the contract in accordance with the contract terms and conditions.

## **2.8 PAYMENT FOR MOBILE EQUIPMENT**

Method of Payment - Periodic Invoices for Units Delivered: In addition to the basic information set forth below, the invoices shall identify critical, descriptive data including, but not limited to, model numbers and serial numbers. It shall be understood that such invoices shall not be authorized for payment until such time as a County representative has inspected and approved the units. The County shall issue payment after completion of items (A) and (B) below, and as per the payment provisions established in Section 1, Paragraph 1.2, (H) (1):

A. The delivered unit is successfully inspected for compliance with all specifications and requirements and is accepted (including delivery of the required manuals).

B. All documentation described in the Purchase Order and listed below has been received as stipulated herein and made out in the name of:

Miami-Dade County, Florida  
2225 N.W. 72nd Avenue  
Miami, Florida 33122

C. Documents List:

Application for Certificate of Title and/or Vehicle Registration (HSMV-8040), Certification of Motor Vehicle Sale Tax Exemption (MVC Form DR-41A), Motor Vehicle Dealer Title Reassignment Supplement (DHSMV 82994), Manufacturer's Statement of Origin To A Motor Vehicle and Service Policy C. These documents must be dated to coincide with the delivery of the vehicle and sent to:

Internal Service Department  
Materials Management Division - Capital Inventory Section  
2225 N.W. 72nd Avenue  
Miami, Florida 33122

D. All documents shall be properly filled out and completed, signed and notarized by an authorized individual with no strike-overs on any documents. Non-compliance will result in payment delays.

E. The invoice shall be produced in triplicate to the name of the department as indicated on the Purchase Order and mailed to the same address as shown on the Purchase Order. The vehicle key numbers are to be noted on the invoice.

F. Failure to submit invoices in the prescribed manner will delay payment.

## **2.9 MISCELLANEOUS PROVISIONS**

2.9.1 Manuals: The awarded Bidder shall supply the County with a minimum of one (1) comprehensive owner's manual which describes the appropriate use of the vehicle purchased, and, two (2) comprehensive repairs and parts manuals which identify the component parts and which describe

the appropriate process for repairing the equipment purchased. These manuals may be provided by book, CD, or via online access to the appropriate complying information.

- 2.9.2 Upon notification by the County, the apparent lowest responsive, responsible Bidder shall register in the MyLCM System for DTPW via the link below:

Go to: <https://app.mylcm.com>

- 2.9.3 There is no numeric race conscious DBE contract goal for this purchase. However, should the awarded Bidder retain the services of Disadvantaged Business Enterprise (DBE) firms on this project through race neutral means, the awarded Bidder shall submit monthly the Subcontractor Monthly Report, reflecting such participation.
- 2.9.4 Vehicle Changes: The County may make changes to the vehicle(s) or equipment supplied during the contract term, before or after delivery and acceptance of the vehicle(s) ordered, provided; 1) the price for the new equipment does not exceed the equipment's Manufacture Suggested Retail Price, and 2) such changes and net amount are mutually agreed between the Bidder and the County.

**SECTION 3 – TECHNICAL SPECIFICATIONS****3.1 SCOPE OF WORK**

These technical specifications provide a general description and define the minimum requirements of Heavy Duty Road Service Trucks ("Trucks") complete with Cab and Chassis, Utility Body, and all equipment as specified below. These Trucks shall be capable of operating 24 hours a day, 7 days a week, 365 days a year with all fluid tanks full plus fluid dispensing equipment, air supply equipment, air tanks, tools, and parts.

The Trucks shall also be capable of pushing or pulling transit buses weighing a minimum of 48,000 lbs. for a minimum distance of 500 yards to safely move disabled buses out of traffic and similar tasks repeatedly without damaging the Truck or its components (drive train, steer and suspension systems, etc.), and must be able to maneuver in close quarters with maximum visibility for the driver.

The Trucks are to be of durable, heavy-duty construction with a minimum life expectancy of six (6) years. These Trucks shall meet DTPW's needs for providing emergency road service for transit buses and are intended for use in South Florida weather, roads and environmental conditions. The Trucks are to be delivered in a "ready to work" condition upon delivery, exclusive of service fluids.

**3.2 CHASSIS:**

Furnish a Cab & Chassis with a GVWR rating of no less than 26,000 lbs. Vehicles shall have all manufacturers' standard equipment and shall have the following additional equipment and additional requirements listed below.

**3.3 WHEELBASE & CAB TO AXLE:**

Wheelbase and Cab to Axle lengths shall be the dimension necessary to accept a 132" utility service body as required. The vehicle's wheelbase and cab to axle dimensions shall be at the center of the cab and chassis manufacturer's vocational recommendations for this application and such dimensional recommendation sheets shall be furnished with the bid submittal.

**3.4 ENGINE:**

- a) Cummins ISB6.7 or approved equal diesel engine. The engine shall have (salient characteristics) 6 cylinders, a high pressure common rail fuel system, a variable geometry turbocharger, a minimum of 325 HP, and a minimum of 725 lb. ft. of torque. The engine is to be a 2016 or later EPA approved diesel engine with an automatic shutdown which activates for low coolant level, low oil level or an overheated condition. The shutdown system shall contain the provision for a brief duration emergency over ride which would enable the vehicle to be moved to a safe location should it shut down in a dangerous location. Additionally, an engine automatic shutdown shall be provided which activates when the idling time exceed fifteen (15) minutes.
- b) Should emission requirements mandate that the Diesel Particulate Filter ("DPF") be mounted in a horizontal position the vendor will be required to provide protection to the vehicles operator by furnishing heat shield(s) which fully protect them from burns or heat exposure.
- c) The engine and its fuel system shall be compatible with B20 biodiesel fuel.
- d) All engines offered to Miami Dade County must be approved by their manufacturer for use with 20% biodiesel. Such usage must not impact the engines and fuel system warranty in any manner, or change published engine output performance figures by more than 5%.

- e) The engine shall be equipped with a fast idle option to raise the engine RPM's while parked to the amount of RPM's required to run the PTO driven air compressor. The switch to activate this system shall be conveniently located within the drivers reach inside the cab.

**3.5 COOLING SYSTEM:**

Manufacturer's largest capacity cooling system for severe duty service.

**3.6 ELECTRICAL:**

- a. Manufacturer's highest capacity alternator and two maintenance free batteries with each battery having a minimum 900 CCA rating shall be provided.
- b. A conveniently located and separately fused 30 ampere power point shall be provided inside the cab.
- c. A 30 foot, 2-gauge flexible booster cable assembly equipped with an Anderson SB350 connector or approved equal jump start plug. The booster cable shall be mounted at the front push bumper grill guard attached to the Truck with a circuit breaker properly rated for the maximum current available. Approved equal jump start plugs shall be of (salient characteristics) genderless design, UL rated at 450 amps with 4/0 wire, silver plated contacts, and compatible with Miami-Dade Transit bus fleet. The final location of the booster cable and type of jump start plug will be determined at the pre-construction conference with the vendor.
- d. A 24 volt (900 peak Amps and 250 cranking Amps minimum rating) power booster pack equipped with a jump start plug described above shall also be provided.

**3.7 STEERING:**

Powering steering is required. Should options exist to decrease the curb to curb turning radius of this vehicle, they shall be furnished as standard equipment. Provide tilt and telescopic steering column if available.

**3.8 FUEL AND DEF TANKS:**

Fuel and DEF tanks shall be of sufficient capacity to allow operation of the vehicle for an 8 hour shift (50% idling & 50% over the road) without having to refuel. The tank shall have a locking cap. The vehicle must be delivered with a ½ tank of fuel and ½ tank of DEF.

**3.9 TRANSMISSION:**

- a. Allison Rugged Duty Series wide ratio automatic transmission or approved equal.
- b. Salient Characteristics:  
A maximum input power of 330 HP, maximum input torque of 950 lb.-ft., maximum turbine torque of 1450 lb.-ft., and all electronic controls. The manufacturer's recommended maximum capacity transmission cooler is to be provided. The transmission shall be filled with a TES 468 approved transmission fluid or the transmission manufacturers approved fluid.

The transmission shall have a PTO provision to run the air compressor listed. The bidder shall be required to supply the appropriate PTO. The PTO need to be programmed to automatically disengage when the vehicle speed exceeds 2 mph. and/ or when the vehicle is in engage in drive or reverse.

**3.10 FRONT AXLE:**

Manufacturer's standard front axle for GVWR model bid with non-aluminum hubs.



**3.11 REAR AXLE:**

Manufacturer's standard rear axle for GVWR model bid with non-aluminum hubs.

**3.12 SUSPENSION:**

Suspension shall be rated for the GVWR required in this bid. If there is a need for auxiliary springs to maintain the utility body level due to placement of the fully loaded fluid tanks, the bidder shall provide them.

**3.13 BRAKES:**

The unit is to be supplied with the largest available air brakes for the front and rear axles selected. All wheel anti-lock braking system (ABS) is required. Appropriately sized Bendix or Wabco air dryer with (salient characteristics) integral oil coalescent filter shall be provided. The air tanks are to be equipped with auto drain moisture ejection system and pull cords to manually drain the air tanks.

**3.14 PARKING BRAKES:**

Standard for make furnished.

**3.15 WHEELS & TIRES:**

Hub pilot wheels with 11R22.5G tires properly rated for the GVWR being supplied, with matching mounted spare wheel and tire combination. Tires are to be speed rated to no less than 75 mph.

**3.16 CAB:**

Cab shall be equipped with all manufacturer's standard equipment plus the following options, tinted window glass, durable vinyl upholstered driver and passenger seats, sun visors, standard rearview mirror, and largest west coast type side view mirrors (over-extended and over-sized) for a utility body application. The Cab shall also include:

- a) Factory installed air conditioning.
- b) Manufacturers' standard AM/FM radio.
- c) Tachometer, air pressure, and coolant temperature gauges shall be provided.

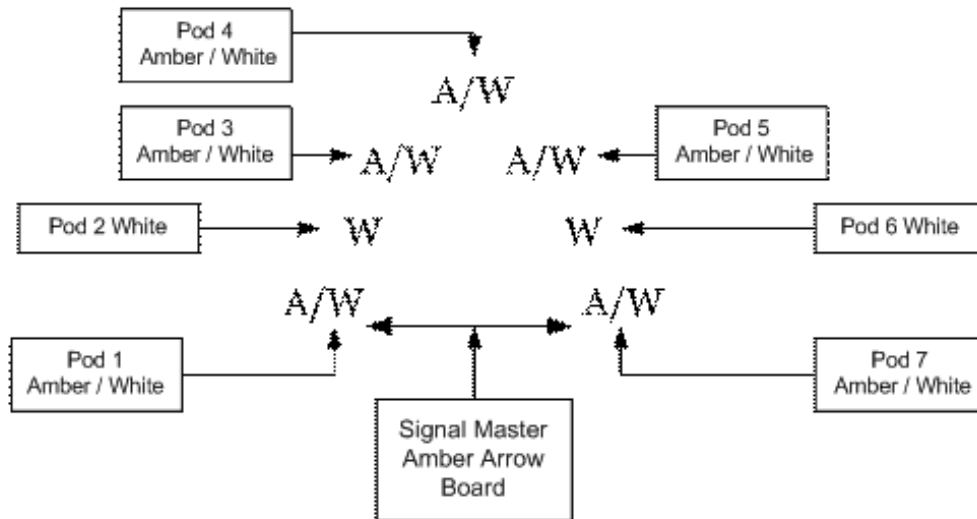
**3.17 WARNING LIGHTS:**

The warning lights and light bar installed per the below must be completely seen from the rear of the vehicle and not be blocked by bulkhead.

To protect the emergency lighting system (light bar and strobes) a properly rated resettable circuit breaker, Cooper Bussman Hi Amp or approved equal shall be provided. The circuit breaker (salient characteristics) shall comply with SAE J1117 for ignition protection. The circuit breaker is to be installed between the vehicle's electrical system and the warning light system as recommended by the OEM and shall be installed in an easy to reach location and as far as possible away from heat sources and water.

The bidder is to provide and install a Federal Signal Vision SLR or approved equal light bar. The light bar provided shall (salient characteristics) be full width in a 53 or 60 inch size as recommended for the model vehicle being bid and shall be "V-shaped" and provide 360 degree coverage. The light bar shall be all LED and have a clear dome lens over each pod. The light bar shall have white LED hot foot lights with 18 LEDs per light, LED alley lights, and a built in all amber color led signal master arrow board. The light bar shall be installed centered over the cab of the vehicle per manufacturer's installation recommendations using the OEM recommended and approved light bar hook type mounts or fixed permanent mount that prevent excessive wind noise, flex, and vibration. The vendor is to provide and install an OEM recommended quick disconnect on the outside of the vehicle for the power supply and cables going to the light bar. The light bar shall be configured per the below pod color configuration diagram.

### Pod Color Configuration



The vendor shall also provide and install a Federal Signal 416200-55 or approved equal clear LED corner light kit. The kit (salient characteristics) shall have two clear LED heads with in line flasher. One corner light head is to be installed in the front left turn signal lens and one corner light head is to be installed in the front right turn signal lens. The LED light heads on the front of the vehicle are to be installed so as to emit the greatest amount of light practicable. Two (2) white Federal Signal or approved equal multipurpose LED lights are to be provided and installed in place of the rear white LED backup lights on the utility body. The backup lights (salient characteristics) are to fully illuminate the rear of the Truck when backing up, and be wired to flash at the same time as the front LED corner kits. The front and rear LED lights shall be wired to activate with the controller below.

A Federal Signal 660100 or approved equal relay module in line between the light bar and corner LED circuits shall be provided. The relay module (salient characteristics) shall have the capability of control four different devices. Relay output one and two shall be capable of operating up to 15 Amps each while output three and four shall be capable of operating up to 10 Amps each (maximum total amperage should not exceed 40 Amp).

To operate the light bar and strobes, the vendor shall provide and install a Federal Signal 660000 or approved equal controller. The controller (salient characteristics) shall have six (6) illuminated push-button switches and a four (4) position slide switch with eighteen (18) pre-programmed keypads configurations. The controller shall be installed in the headliner mid-ship mounted above rear view mirror. The final placement of the controller is not to interfere with the operation of the rear view mirror. The controller shall be programmed per the below controller configuration diagram.

Six (6) Button Controller with a Slide Switch Configuration:

Slide Switch	Position 1	Operates only the corner LED warning lights in the front and rear reverse lights on body.
	Position 2	Operates the light bar with Federal Signal or approved equal prescribed random flash patterns and simultaneously operates the front corner LED lights and rear reverse lights on body
	Position 3	Operates the light bar with Federal Signal or approved equal prescribed random faster flash patterns and simultaneously operates the front corner LED lights and rear reverse lights on body
Buttons	# 1	Left Flood, Right Flood, Full Flood, and Off.
	# 2	Pods are to jog to the left when in flood mode.
	# 3	Pods are to jog to the right when in flood mode.
	# 4	Signal Master LED light bar operation.
	# 5	Light Bar Illumination Dimming.
	# 6	Progressive Rear Flood toward the rear of the vehicle.

A Unity or approved equal all LED spot light mounted on the driver's side "A" pillar. The spot light (salient characteristics) shall be all LED and six (6) inches in diameter. The spot light shall have the largest lumens available in a 6 inch spot light.

### 3.18 **BODY:**

It shall be the Bidder's responsibility that the equipment is installed on the chassis so as to correctly distribute the vehicles weight, and the weight with a full load of fluids so that the vehicle is in compliance with FDOT GVW and GAW regulations.

#### 3.18.1 **UTILITY BODY:**

The body shall be a utility type, approximately 132 inches in length, constructed of no less than 14 gauge galvanized steel and be supplied with a torsion box sub frame/floor. The bed shall be constructed for heavy duty use, of no less than 12 gauge steel, diamond plate or approved equal non-slip surface. Rod type hinge doors with brass or stainless steel bearing. Double panel doors' panel edges shall be double flanged. Spring loaded double latches with individual locks keyed alike shall be provided. All shelves shall have rolled edges. Every compartment shall have LED interior lighting and a manual toggle switch to operate all compartment lights shall be located in the cab and shall have a status indicator light (Red for On). In addition the complete bed, side walls, inside of bed tailgate and tops of the utility body and complete top portion of the bumper shall be sprayed with a Rhino lining, Line X, or approved equal coating. The coating shall be (salient characteristics) a water resistant industrial non slip coating that prevents rust and corrosion. The coating shall be resistant to a wide range of chemicals (oil, fuel, and solvents) according to independently performed immersion test per ASTM D543.

All hydraulic hoses in the utility body and chassis of the Truck shall be protected with cloth hose sleeves and be clamped and secured with rubber coated hose clamps.

### 3.18.2 FLUID TANKS:

- a. The utility body shall have five fluid tanks. Tanks are to be constructed individually so that common tank walls are not shared. All tanks shall include internal vertical supports that also act as baffles for the fluids to prevent surging. Fluids must not leak from air vents and pump mountings when tanks are full during acceleration, deceleration, and cornering. Tanks shall be dismountable for repair or replacement and have a removable bracket which goes around the tank as well as other removable brackets to firmly secure it to the utility body. Tanks are to be protected from chafing with brackets, Truck body and other tanks. All tanks shall have fill ports with fill necks 6" above tank top, a minimum of 2" in diameter, and shall have accessible drain plugs facing the center aisle. Fill caps must have a seal which will prevent the loss of fluid while the Truck is in motion and an over center locking mechanism. Tanks shall have vents which will allow for atmospheric pressure equalization and will close should the vehicle be involved in a rollover accident.
- b. Construct tanks with fill caps located at the rear of each tank to lessen the possibility of fluid loss during stops. Supply lines from the tanks to the reels must follow the contour of the body along the base of the tanks. The lines must be a minimum of 1" ID for the diesel fuel and 1/2" for all others. Galvanized steel pipes shall not be used in the diesel fuel storage system. Diesel will react chemically with the zinc coating and will be harmful to the engine. Provide unions for each tank to facilitate removal for repair. Removable heavy metal shields shall be provided to protect supply pipes from damage caused by loose items left in the utility bed. Tanks shall be constructed from Manufactures Standard for Sheet Steel Gage No. 31, 1/8" or greater. Tank, quantity, size, and location shall be constructed in accordance with the attached drawing. The diesel fuel, transmission fluid, motor oil, water, and coolant tanks shall be stainless steel and are to be provided with top mounted air operated pumps. Pump housings shall be bolted to the tank top with gasket to prevent spillage. All the tanks, except water and coolant, shall be provided with a Balcrank Model 1130-016 or approved equal pump. The pump shall have (salient characteristics) 5:1 pressure ratio, 3.25" stroke, free flow of 5.4 gpm, and operating air pressure range of 10-150 PSI). The water and coolant tanks shall be provided with a Balcrank Model 1160-002 or approved equal pump. The pump shall have (salient characteristics) 1.3:1 pressure ratio, 3.88" stroke, and operating air pressure range of 40-150 PSI. Air supply lines to pumps shall have quick connect fittings. General tank layout and dimensions are shown on the attached drawing (See Exhibit A). Bidders are to submit a detailed shop drawing of their tank, reel, and plumbing layout with their bid. Tank design must accommodate any protruding wheelwells. Final layout must be approved by DTPW prior to production. Provide for galvanic corrosion protection between tanks and dissimilar metals.
- c. Provide two 40 gal. (minimum), or one 80 gal. (minimum) air reservoirs, each equipped with air relief valves set at 125 PSI and accessible drain valves, dedicated for the auxiliary equipment on the utility body and to maintain air in the system of the pushed or pulled buses. If an air on demand PTO compressor system is provided the air reserve system is not required for the auxiliary equipment on the utility body and to assist the recovery of the disabled transit buses.
- d. All tanks shall be label specifying product and tank capacity.

**3.18.3 AIR SYSTEM**

- a. The bidder shall provide a PTO mounted air compressor with a rating of no less than 100 CFM to supply air to the service body's auxiliary equipment air reservoir or an Air on Demand PTO mounted air compressor with a rating of no less than 125 CFM.
- b. An emergency air shutoff valve shall be provided on the driver side of the body.
- c. Cooler fans shall be protected with expanded or punched metal covers.
- d. A filter regulator shall be provided to remove compressor lubricants, dirt and water from the air system.

**3.18.4 HOSE REELS:**

The utility body shall be equipped with six hose reels as follows:

- a. The diesel fuel hose reel shall be Balcrank Model 2310-010 or approved equal. The diesel fuel hose reel shall have (salient characteristics) 50' X 1" hose size, 250 psi hose working pressure rating and automatic nozzle with swivel.
- b. The transmission fluid and motor oil hose reels shall be Balcrank Model 2110-011 or approved equal. The transmission fluid and motor oil hose reels shall have (salient characteristics) 50' X 1/2" hose size, and 3000 psi hose working pressure rating.
- c. The air, water, and coolant hose reels shall be Balcrank Model 2110-015 or approved equal. The air, water, and coolant hose reels shall have (salient characteristics) 50' X 3/8" hose size, and 250 psi hose working pressure rating.
- d. The reels shall have a minimum hose length of 50 feet mounted inside the curbside front utility body compartments with sufficient clearance for dispensers to be closed inside. Holders shall be provided for dispensers suitable to rough service conditions. The reel compartment should be equipped with a drain plug.
- e. The transmission fluid gun shall be Balcrank Model 3330-009 or approved equal. The transmission fluid gun (salient characteristics) shall have a control handle with a flex extension and auto-lock nozzle, flow range of 0.4-4 US gallons per minute and maximum operating pressure of 1000 PSI.
- f. The motor oil gun shall be Balcrank Model 3330-008 or approved equal. The motor oil gun (salient characteristics) shall have a control handle with a straight extension and auto-lock nozzle, flow range of 0.4-4 US gallons per minute and maximum operating pressure of 1000 PSI.
- g. The coolant gun shall be Balcrank Model 3330-010 or approved equal. The coolant gun (salient characteristics) shall have a control handle compatible with anti-freeze and shall have straight extension and auto-lock nozzle, flow range of 0.4-4 US gallons per minute and maximum operating pressure of 1000 PSI.
- h. The water gun shall be Balcrank Model 3340-007 or approved equal. The water gun (salient characteristics) shall be a thumb valve aluminum spout gun style with a maximum operating pressure of 300 PSI.

- i. The airline shall be provided with an Aeroquip model FD41 coupling or approved equal. The coupling (salient characteristics) must be a female half quick disconnect coupling with automatic sleeve for one hand push to connect operation for compressed air service. The coupling must be compatible with a male FD41 or equivalent male half.

**3.18.5 GRAB HANDLES:**

Install two grab handles at the rear of the utility bed to facilitate access to the bed. The final location will be determined at the pre-construction conference with the vendor.

**3.18.6 WORK BENCH VISE:**

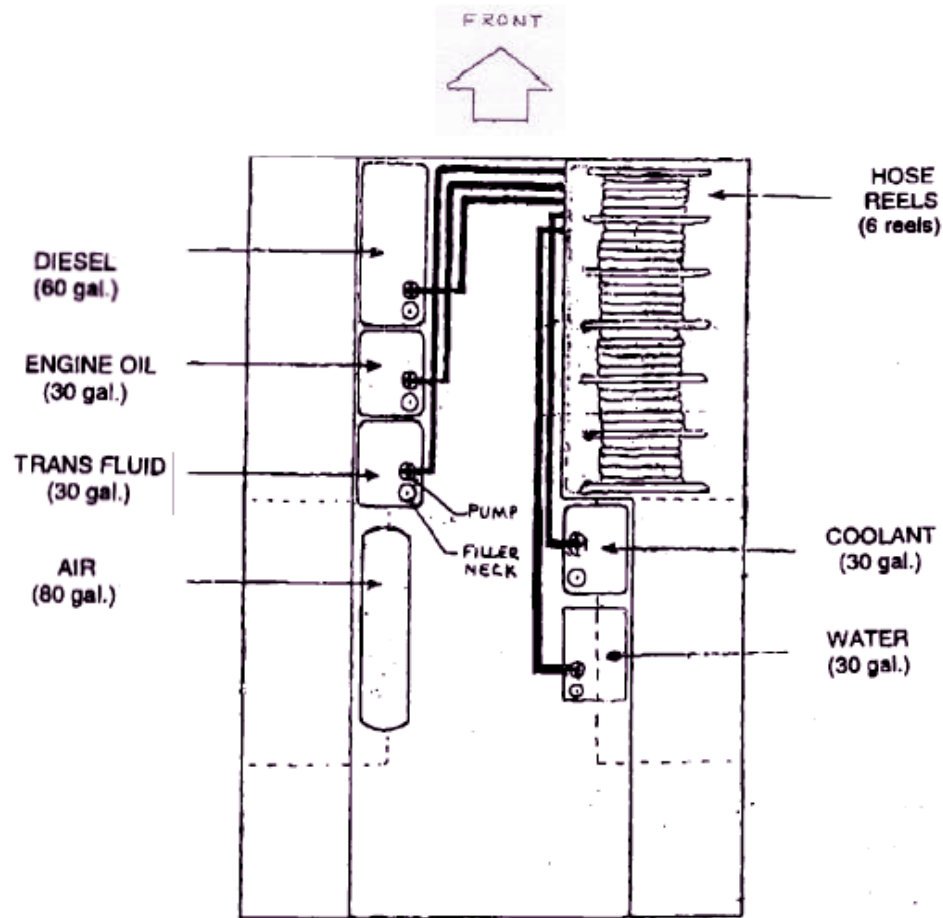
Provide a work bench vise Wilton 1745 or approved equal. The work bench vise (salient characteristics) shall have a 4 1/2" Jaw width, 4" Jaw opening maximum capacity, 3 1/4" Throat depth, and 1/4" - 2 1/2" Pipe jaw capacity. The work bench vise shall be mounted at the passenger side of the rear bumper. The final location will be determined at the pre-construction conference with the vendor.

**3.19 WEIGHT DISTRIBUTION CHART**

The bidder shall submit a weight distribution chart with a 100% load, (i.e. all tanks full of fuel/fluids and the Truck full of fuel). See Exhibit A below for recommended tank layout. If the layout of the tanks presented does not present an FDOT legal load then the prospective bidder shall present a recommended layout, or a suspension upgrade, or both, that does meet FDOT with their bid.

## EXHIBIT "A"

## SERVICE TRUCK TANK LAYOUT



TANK	LENGTH	WIDTH	HEIGHT	MATERIAL
DIESEL	42"	13"	26"	STAINLESS STEEL
ENGINE OIL	27"	13"	20"	STAINLESS STEEL
TRANS FLUID	27"	13"	20"	STAINLESS STEEL
COOLANT	27"	13"	20"	STAINLESS STEEL
WATER	27"	13"	20"	STAINLESS STEEL

**3.20 FRONT BUMPER:**

Provide a front push bumper adequate to occasionally push a 48,000 lb. transit bus a short distance to get it out of traffic. Bumper dimensions and height shall accommodate passenger cars as well as small and large transit buses. Bumper design shall be submitted to DTPW for approval.

**3.21 PAINT:**

The entire unit including body shall be painted white.

**3.22 TOW CHAIN HOOKS:**

Provide two chain hooks in the front and two in the rear with 3/4" throat. Provide two high strength alloy steel grade 80 chains in fifteen foot lengths. Chains shall have a work load limit of at least 24700 lbs. Each chain shall have two grab hooks for shortening or holding a length of chain. Hooks shall have the same work load rating.

**3.23 TOW ADAPTERS, TOW BAR AND PINTLE HOOK:**

A front tow adapter kit and tow bar shall be provided with each service Truck. The front tow adapter shall be compatible with Miami-Dade Transit New Flyer LFA model buses for flat towing the buses from the front. The New Flyer tow adapter shall be kit part number NF 6343110 or approved equal. The tow adapter (salient characteristics) shall have two brackets, two cross pins, and two retaining snap pins. The tow bar shall be New Flyer part number NF 111248 or approved equal. The tow bar (salient characteristics) shall be compatible with the tow adapter described above and shall be able to haul buses weighing a minimum of 48,000 lbs.

A pintle hook shall be provided with each service Truck. The pintle hook shall be attached to the rear bumper and/or frame and it shall be capable to haul a minimum of 48,000 lbs.

Contractor shall provide the procedure to pulling buses using the tow bar and tow adapter kit with the submittal and shall demonstrate the procedure at MDC facility after the final acceptance of the first service Truck.

**3.24 TRAFFIC CONES AND CONE HOLDER:**

Provide three (3) 28 inches orange traffic cones with reflective collars and a cone holder able to accommodate the three cone holders previously described. The cone holder shall be located at the road side of the rear bumper of each Truck.

**3.25 KEYS:**

Provide two (2) set of keys with each Truck.

**3.26 MANUALS:**

Two (2) sets of parts and maintenance manuals shall be provided with each unit delivered. Electrical schematics specific to the units delivered.

**3.27 TRAINING:**

The awarded bidder will be required to provide a minimum of 1 training session for service Truck operation and 1 training session for maintenance and repair. Typical size of 10 participants, including DTPW Training Instructors, per training session at DTPW's Support Services facility at 3295 NW 31 Street, Miami, Florida 33142. Each training session shall be at least four (4) hours long.

An exact copy of the training presentation in Electronic Format, Microsoft PowerPoint, shall be provided to the DTPW lead training instructor at no additional cost, prior to the first training session, as a permanent record and for future usage by DTPW.



## SECTION 4 ATTACHMENTS

Bidders shall complete and submit the following:

1. **APPENDIX A** – FEDERAL CERTIFICATIONS
2. **EXHIBIT A** - PROPOSAL SUBMISSION PACKAGE: FTA Submittal Form, Fair Subcontract Practices Affidavit, Subcontractor Listing, Lobbyist Registration Form, and Contractor Due Diligence Affidavit.

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